

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D205-541 REV. J &
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-541 REV. 4
REF. TCCA STC SH96-120,
FAA STC SR00696NY
EASA STC EASA.IM.R.S.01242

1.0 PURPOSE:

The purpose of this DSI is to provide operators of Bell 205/210/212/214/412 Rotorcraft equipped with Dart D205-541-043/-044/-045/-046 Heli-Utility-Baskets with an Upgrade Kit to replace the existing Lid Prop Arm Assembly with an Automatic Lid Opening Gas Spring Kit. The D205-541-051 Automatic Lid Opener Kit includes parts and hardware to install a gas spring on both ends of the D205-541-043/-044/-045/-046 basket.

2.0 PARTS LIST:

ITEM No.	QTY -051	PART NUMBER	DESCRIPTION
	X	D205-541-051	AUTOMATIC LID OPENER KIT
1	4	D3953-3	GAS SPRING STUD
2	4	D3953-7	GAS SPRING SPACER
3	4	D3953-9	GAS SPRING WASHER
4	6	D3953-17	GAS SPRING SPACER
5	2	D3953-19	GAS SPRING BRACKET
6	2	D3953-21	GAS SPRING BRACKET
7	2	D3969-9	GAS SPRING
8	4	AN3-14A	BOLT
9	4	AN3-20A	BOLT
10	4	AN310-4	CASTELLATED NUT
11	8	MS21042L3	NUT
12	4	MS24665-231	COTTER PIN
13	16	NAS1149F0332P	WASHER
14	4	NAS1149F0463P	WASHER

NOTE:

For customers wishing to order new baskets with the Lid Opener pre-installed, use the following numbers:

D205-541-043 BASKET with AUTOMATIC LID OPENER installed = D205-541-043A

D205-541-044 BASKET with AUTOMATIC LID OPENER installed = D205-541-044A

D205-541-045 BASKET with AUTOMATIC LID OPENER installed = D205-541-045A

D205-541-046 BASKET with AUTOMATIC LID OPENER installed = D205-541-046A

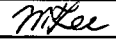


3.0 PROCEDURE:

For D205-541-043/-044/-045/-046 Heli-Utility Baskets, replace the existing Prop Arm Assembly with gas springs on both ends of the basket. (NOTE: Once this modification is complete, it will not be possible to re-install the D2332-041 Prop Arm Assembly)

3.1 Remove the D2332-041 Prop Arm Assembly.

3.2 Grind flush and deburr the D2327-3 Spacer Bushing from the end of the basket base. Touch up paint per ICA-D205-541, Section 5.1.5.

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01
APPROVED 
BY: <u>D. SHEPHERD (DE #02)</u>
DATE: <u>17.01.11</u>
CERT. NO.: <u>SH96-120</u>
ISSUE NO.: <u>3</u>

C	REMOVED -053, UPDATE APPLICABILITY OF -051 KIT REASON PAR17-572	SAD	17.01.11
B	FLIP GAS SPRING ORIENTATION, ADD D3969-9 ADD-053 KIT, NAS1149F0332P WASHER WAS 0363P	CP	16.05.12
A	NEW ISSUE	DB	15.02.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	SAD		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.	N/A	DSI 9710	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		AUTOMATIC LID OPENER INSTL	NTS
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- 3.3 Locate the QTY 2 D3953-17 Gas Spring Spacer on the basket lid per Figure 1 (-043/-044) or Figure 2 (-045/-046). Trim steel mesh locally as required. Transfer mark and drill 2X Ø0.194 holes thru basket lid. Touch up paint per ICA-D205-541, Section 5.1.5. (Later model D2512 Basket Lids may be pre-drilled for gas spring brackets)
- 3.4 Install QTY 2 D3953-17 Gas Spring Spacer and D3953-19 Gas Spring Bracket to the basket lid using 2X AN3-20A bolts, NAS1149F0332P Washers and MS21042L3 Nuts as shown in Figure 3.
- 3.5 Locate the D3953-17 Gas Spring Spacer on the basket base as shown in Figure 1 (-043/-044) or Figure 2 (-045/-046). Trim steel mesh locally as required. Transfer mark and drill 2X Ø0.194 holes thru the basket base. Touch up paint per ICA-D205-541, Section 5.1.5.
- 3.6 Install the D3953-17 Gas Spring Spacer and D3953-21 Gas Spring Bracket to the basket base using 2X AN3-14A bolts, NAS1149F0332P Washers and MS21042L3 Nuts, as shown in Figure 3.
- 3.7 Insert D3953-3 Gas Spring Studs through the D3953-19 and D3953-21 Gas Spring Brackets from the inside of the basket. (May be performed prior to 3.6 if necessary because of basket mesh).
- 3.8 Install a D3953-7 Gas Spring Spacer on to each stud followed by the D3969-9 Gas Spring, D3953-9 Gas Spring Washer, NAS1149F0463P Washer and AN310-4 Castellated Nut. To secure the nut, install a MS24665-231 Cotter Pin into the D3953-3 Gas Spring Stud per MS33540 or AC43.13 Chapter 7-127.
- NOTE:** - With the Lid in the closed position, the D3969-9 Gas Spring should NOT be fully compressed.
- Open the lid to accommodate the installation of the fully extended gas spring.
- 3.9 Repeat the installation on the opposite end of the basket.
- 3.10 Test the installation. If installed properly, the Gas Springs should assist in both opening and closing the basket lid.

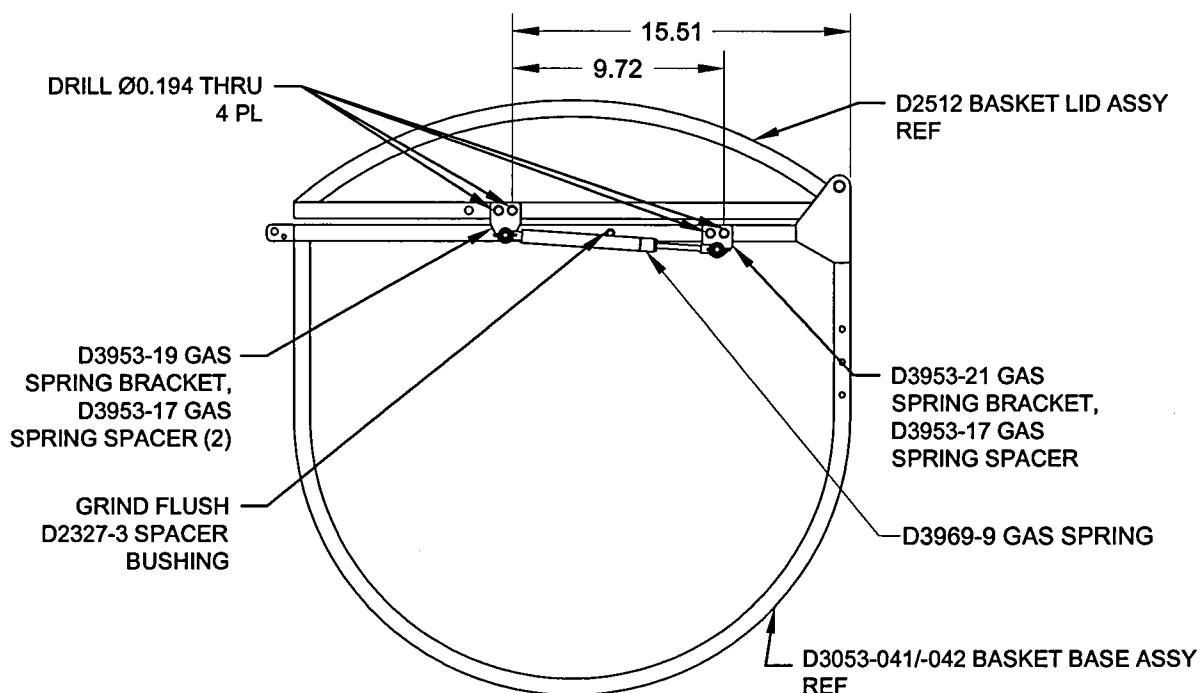


FIGURE 1: D205-541-051 AUTOMATIC LID OPENER INSTALLATION
(ON D205-541-043/-044 HELI-UTILITY BASKET, BOTH ENDS)

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AIRCRAFT CERTIFICATION
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DAO # 01-O-01

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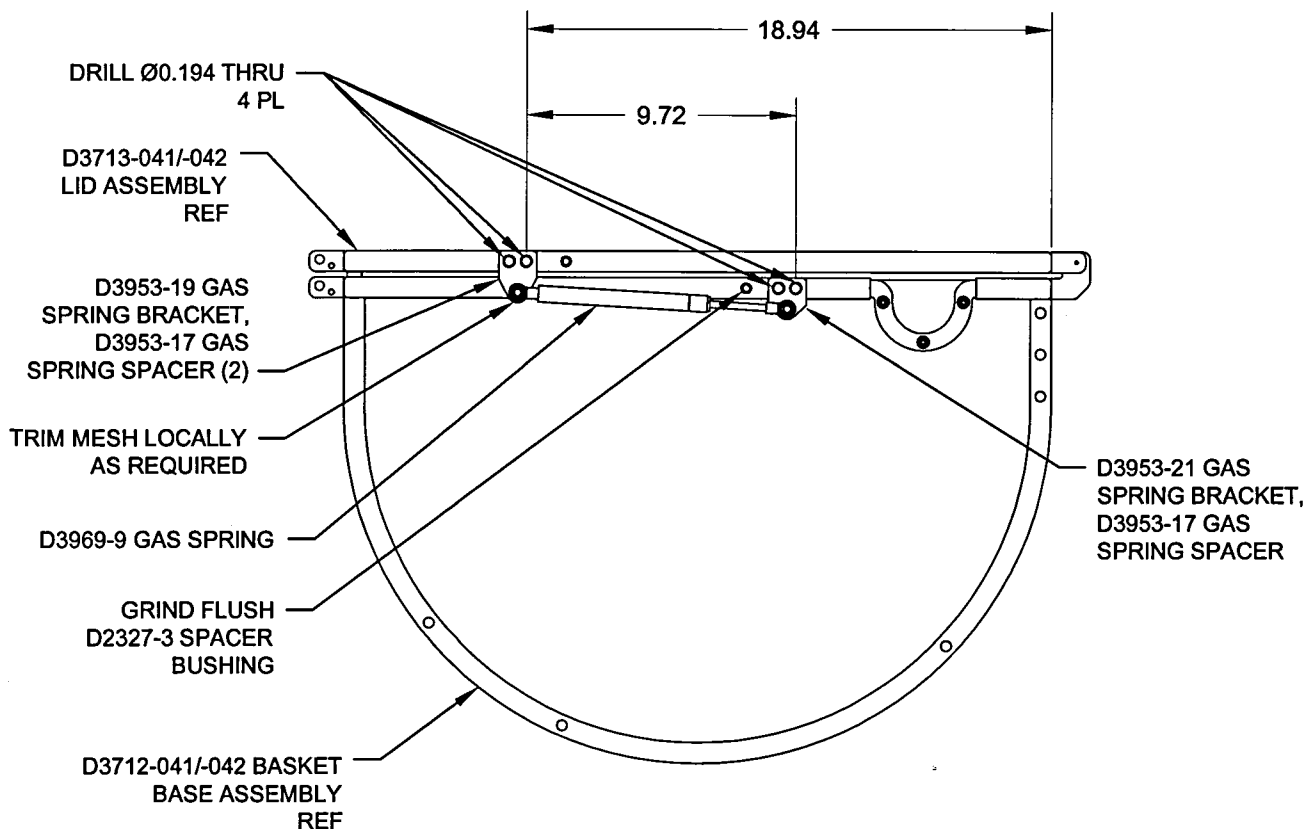


FIGURE 2: D205-541-051 AUTOMATIC LID OPENER INSTALLATION

(ON D205-541-045/-046 HELI-UTILITY-BASKET, BOTH ENDS)

(MESH NOT SHOWN FOR CLARITY)

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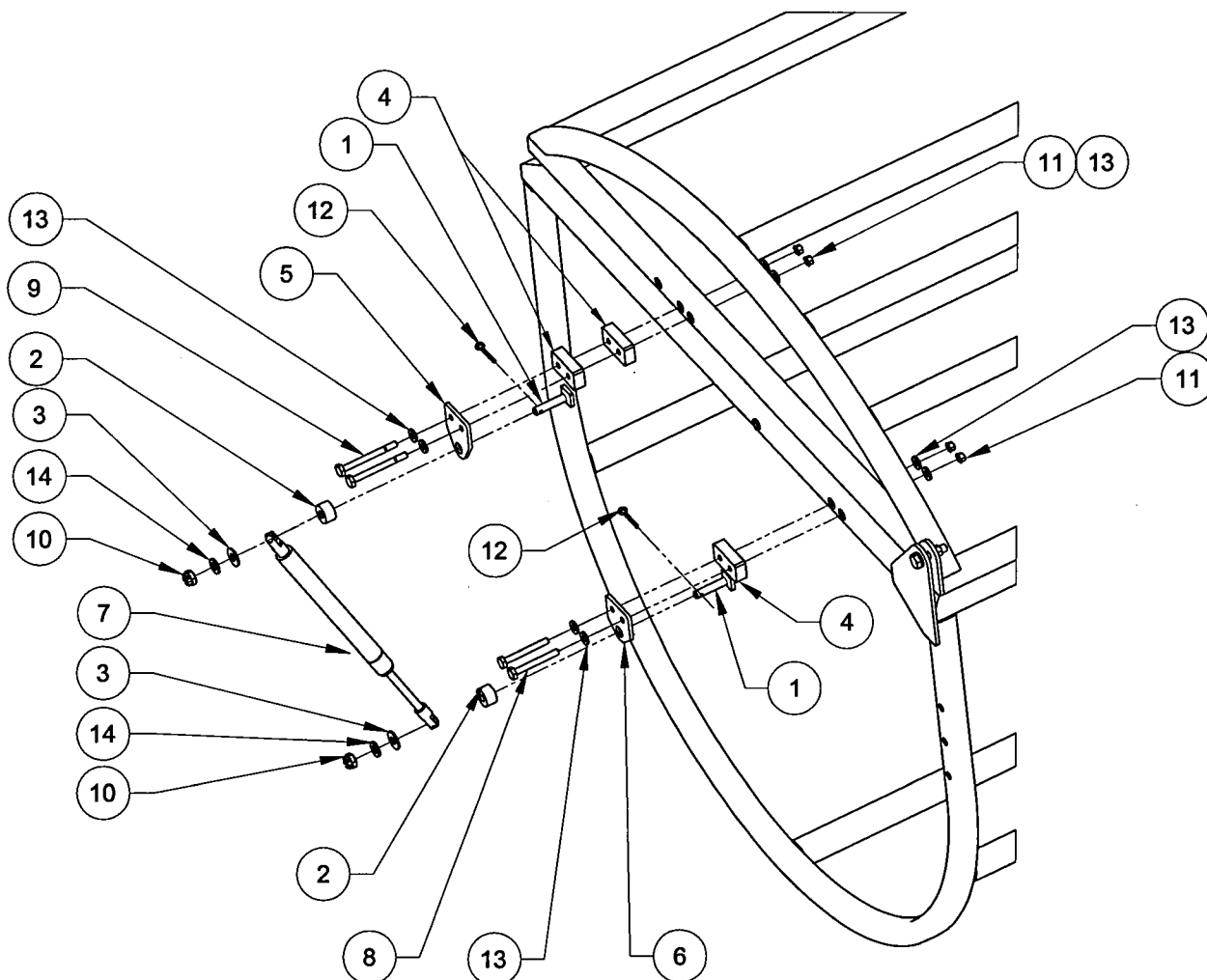


FIGURE 3: D205-541-051 GAS SPRING KIT INSTALLATION

SHOWN ON AFT END OF D205-541-043 BASKET, FWD END SIMILAR
INSTALLATION ON THE D205-541-044/-045/-046 BASKET SIMILAR
(MESH NOT SHOWN FOR CLARITY)

4.0 WEIGHT AND BALANCE:

Installation	Weight	LATERAL		LONGITUDINAL	
		ARM	Moment	ARM	Moment
D205-541-051	0.69 lb	±63.13 in	±43.6 in-lb	132.25 in	91.3 in-lb
Automatic Lid Opener Kit	0.31 Kg	±1.60 m	±0.5 m-kg	3.36 m	1.0 m-kg

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